

**FIG. 1**

FIG. 2 is a block diagram of a system 200, according to one embodiment of the present invention. The system 200 includes a Node Controller 220, a User Interface Module 250, a Management System 260, an Input/Output Section 210, and a Switching Matrix 230. The Node Controller 220 is connected to the User Interface Module 250 and the Management System 260. The Node Controller 220 is also connected to the Input/Output Section 210 and the Switching Matrix 230. The Input/Output Section 210 is connected to the Switching Matrix 230 via an Internal Input Signal 270 and an Internal Output Signal 280. The Input/Output Section 210 is also connected to a network 140 via an input and output signal path.

200

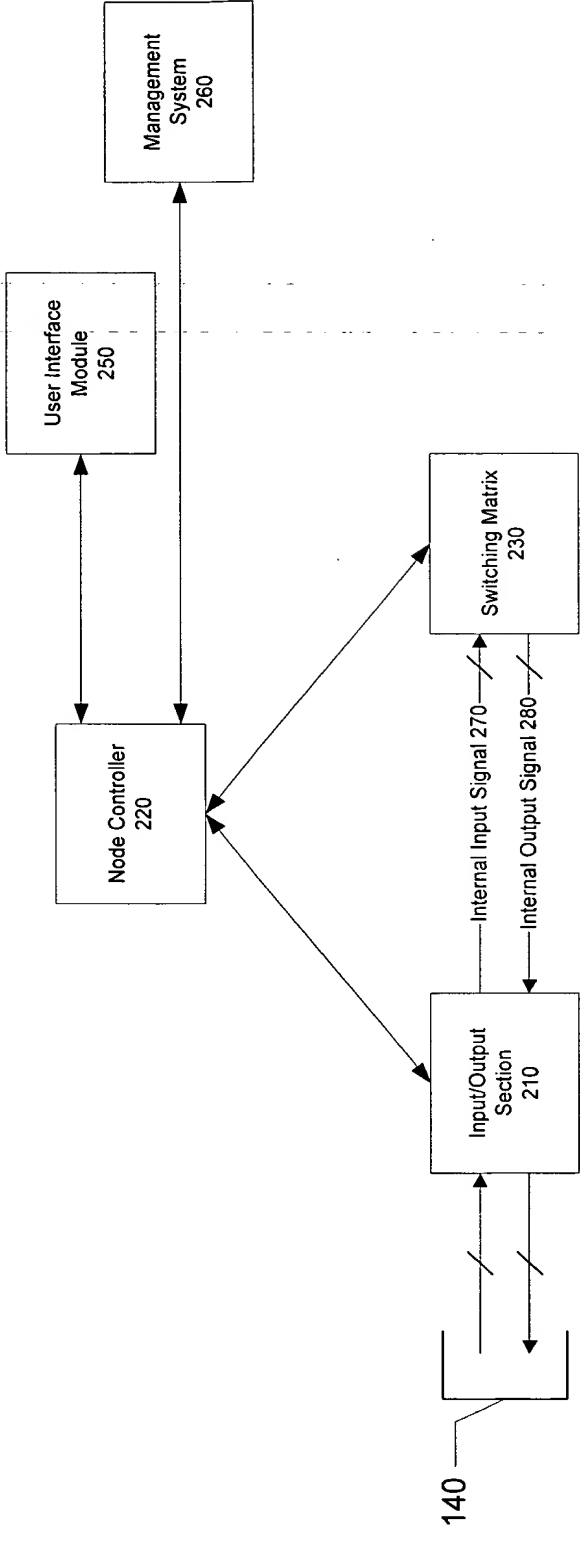


FIG. 2

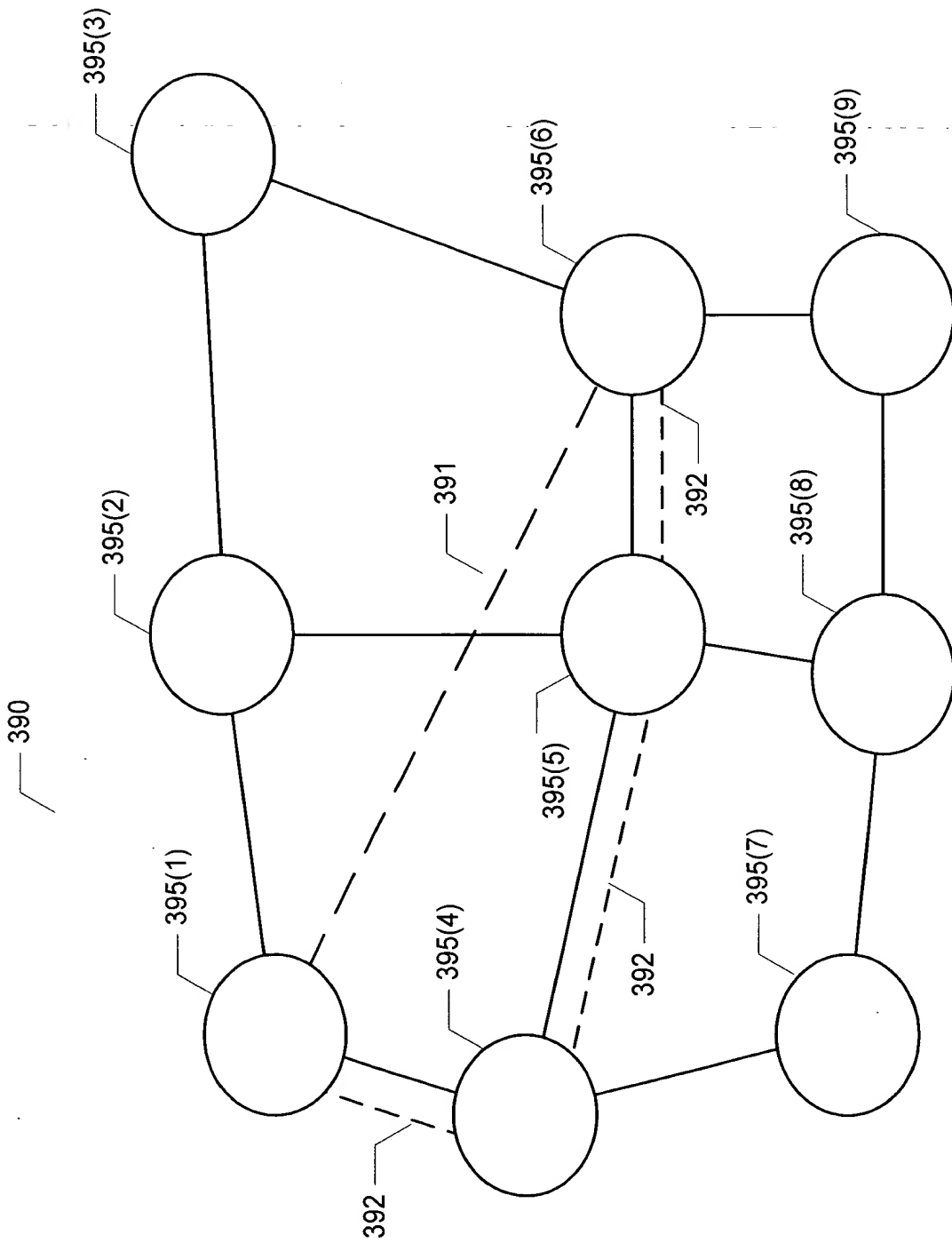


FIG. 3

200

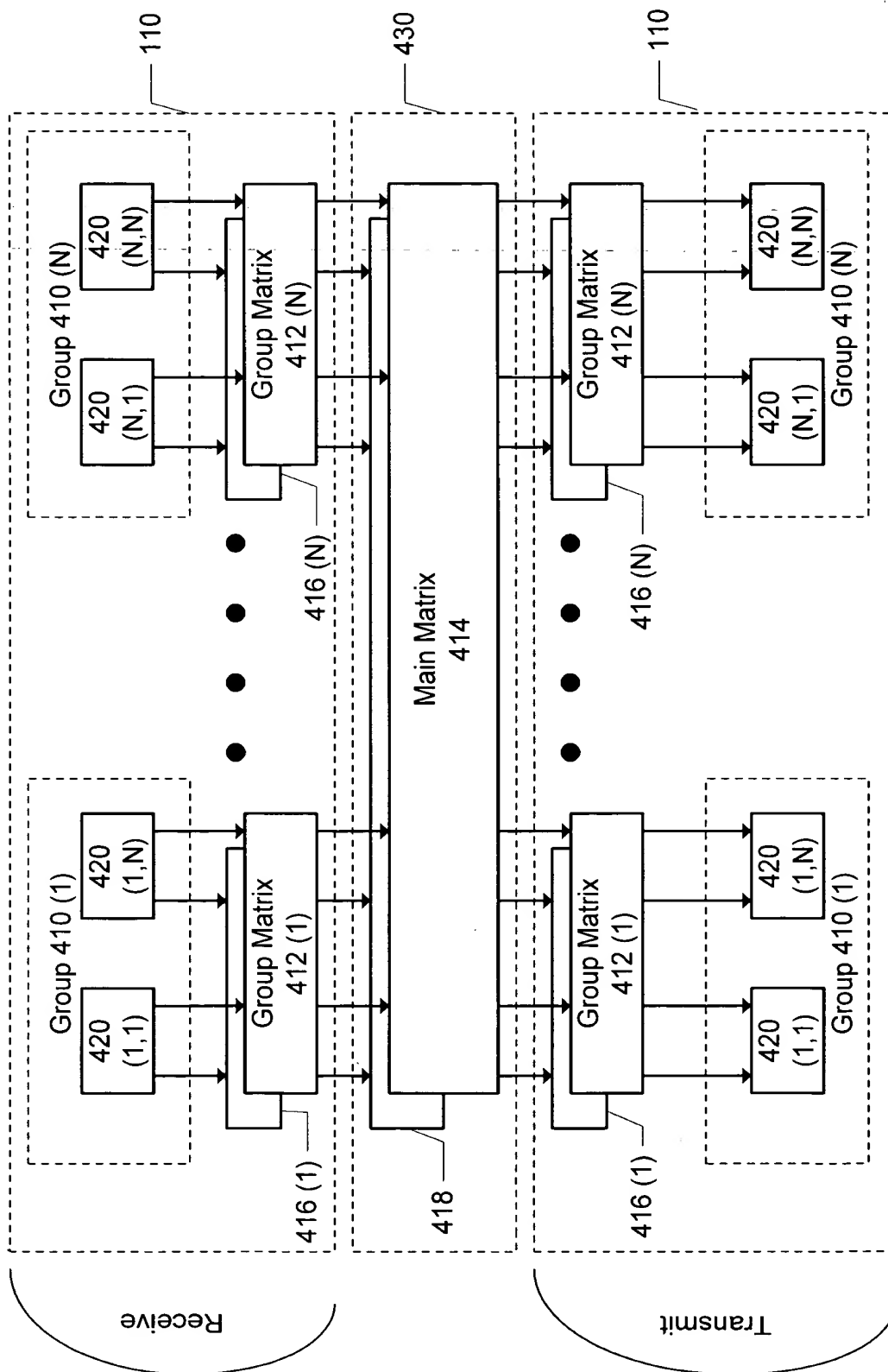


FIG. 4

500

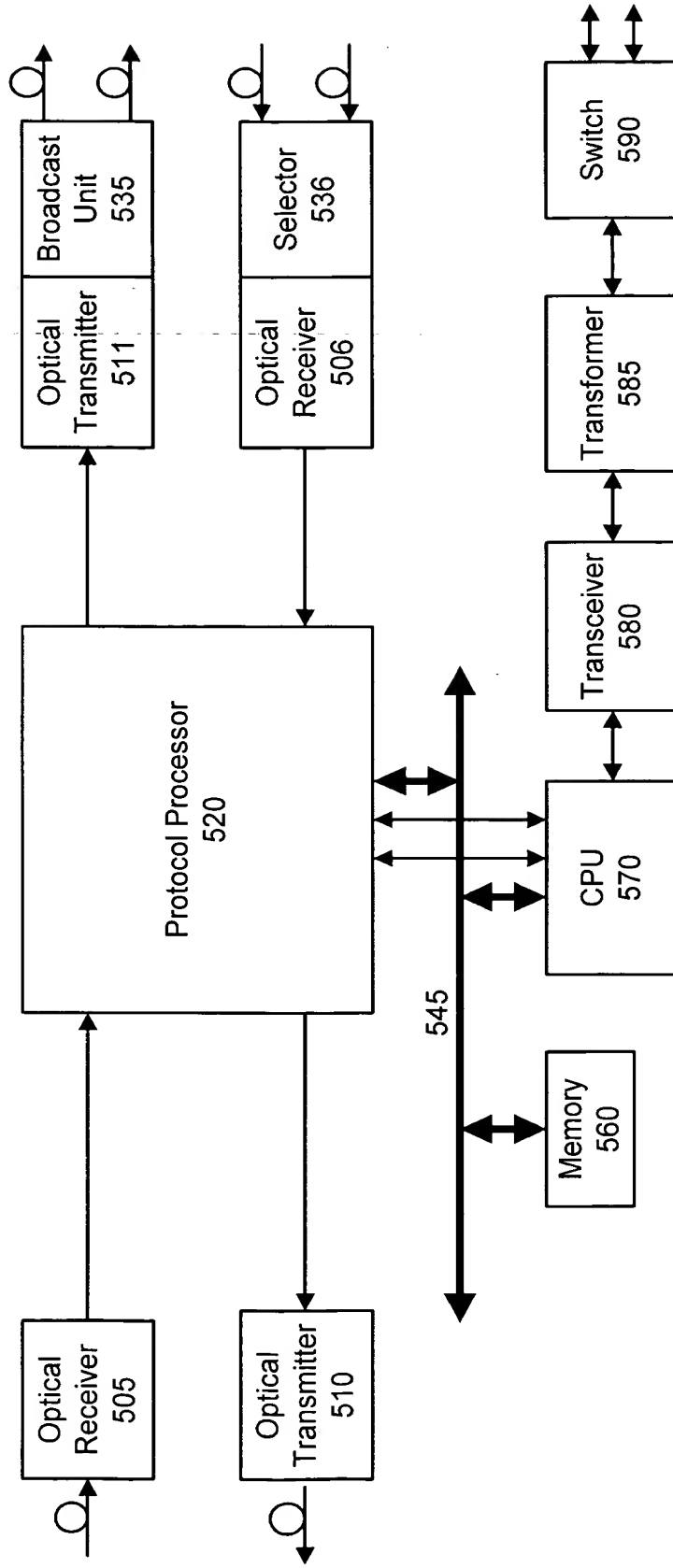
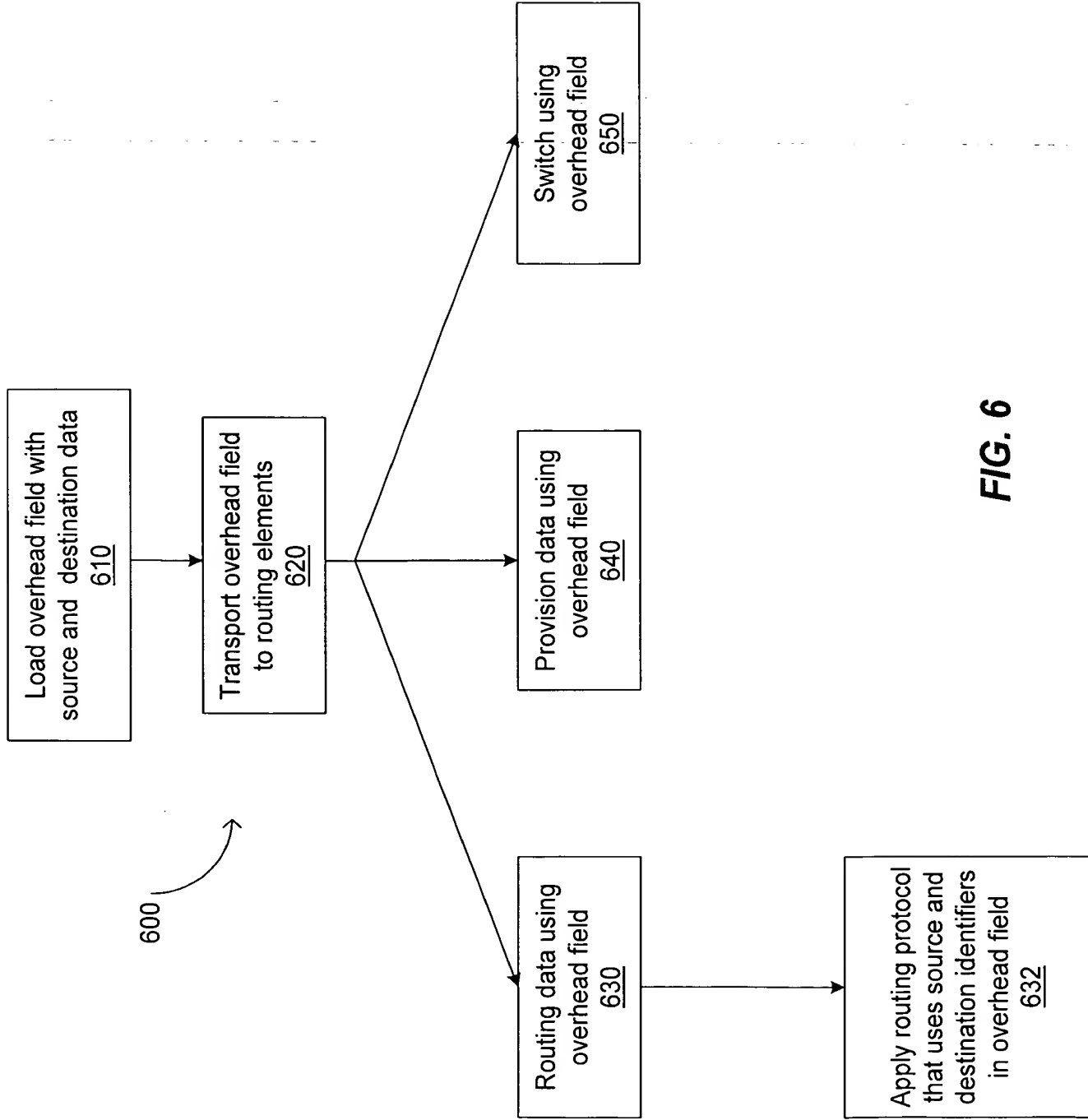


FIG. 5

FIG. 6 is a block diagram of a system 600 for processing overhead fields in a network packet. The system 600 includes a load overhead field with source and destination data 610, a transport overhead field to routing elements 620, a routing data using overhead field 630, a provision data using overhead field 640, and a switch using overhead field 650. The system 600 also includes a block for applying a routing protocol that uses source and destination identifiers in the overhead field 632.



**FIG. 6**